

Titles of most frequently occurring classifications of patents returned
from a search of 10552824 on Nov 27 , 2007

- 13 704/219 (7 OR, 6 XR)
Class 704 DATA PROCESSING: SPEECH SIGNAL PROCESSING, LINGUISTICS,
LANGUAGE TRANSLATION, AND AUDIO COMPRESSION/DECOMPRESSION
704/200 . SPEECH SIGNAL PROCESSING
704/201 .. For storage or transmission
704/219 ... Linear prediction
- 9 704/230 (4 OR, 5 XR)
Class 704 DATA PROCESSING: SPEECH SIGNAL PROCESSING, LINGUISTICS,
LANGUAGE TRANSLATION, AND AUDIO COMPRESSION/DECOMPRESSION
704/200 . SPEECH SIGNAL PROCESSING
704/201 .. For storage or transmission
704/230 ... Quantization
- 6 704/200.1 (3 OR, 3 XR)
Class 704 DATA PROCESSING: SPEECH SIGNAL PROCESSING, LINGUISTICS,
LANGUAGE TRANSLATION, AND AUDIO COMPRESSION/DECOMPRESSION
704/200 . SPEECH SIGNAL PROCESSING
704/200.1 .. Psychoacoustic
- 6 704/226 (0 OR, 6 XR)
Class 704 DATA PROCESSING: SPEECH SIGNAL PROCESSING, LINGUISTICS,
LANGUAGE TRANSLATION, AND AUDIO COMPRESSION/DECOMPRESSION
704/200 . SPEECH SIGNAL PROCESSING
704/201 .. For storage or transmission
704/226 ... Noise
- 6 704/223 (3 OR, 3 XR)
Class 704 DATA PROCESSING: SPEECH SIGNAL PROCESSING, LINGUISTICS,
LANGUAGE TRANSLATION, AND AUDIO COMPRESSION/DECOMPRESSION
704/200 . SPEECH SIGNAL PROCESSING
704/201 .. For storage or transmission
704/221 ... Pattern matching vocoders
704/223 Excitation patterns
- 6 704/207 (1 OR, 5 XR)
Class 704 DATA PROCESSING: SPEECH SIGNAL PROCESSING, LINGUISTICS,
LANGUAGE TRANSLATION, AND AUDIO COMPRESSION/DECOMPRESSION
704/200 . SPEECH SIGNAL PROCESSING
704/201 .. For storage or transmission
704/205 ... Frequency
704/206 Specialized information
704/207 Pitch
- 6 704/E19.035 (0 OR, 6 XR)
Class 704 DATA PROCESSING: SPEECH SIGNAL PROCESSING, LINGUISTICS,
LANGUAGE TRANSLATION, AND AUDIO COMPRESSION/DECOMPRESSION
704/E19.001 . SPEECH OR AUDIO SIGNAL ANALYSIS- SYNTHESIS TECHNIQUES FOR
REDUNDANCY REDUCTION, E.G., IN VOCODERS, ETC.; CODING OR DECODING OF SPEECH OR AUDIO
SIGNALS; COMPRESSION OR EXPANSION OF SPEECH OR AUDIO SIGNALS, E.G., SOURCE-FILTER
MODELS, PSYCHOACOUSTIC ANALYSIS, ETC. (EPO)
704/E19.023 .. Using predictive techniques; codecs based on source-filter
modelization (EPO)
704/E19.026 ... Determination or coding of the excitation function;
determination or coding of the long-term prediction characteristics (EPO)
704/E19.035 Determination or coding of a code excitation; code
excited linear prediction (CELP) vocoders (EPO)
- 5 704/205 (1 OR, 4 XR)

Class 704 DATA PROCESSING: SPEECH SIGNAL PROCESSING, LINGUISTICS,
 LANGUAGE TRANSLATION, AND AUDIO COMPRESSION/DECOMPRESSION
 704/200 . SPEECH SIGNAL PROCESSING
 704/201 .. For storage or transmission
 704/205 ... Frequency

5 704/222 (1 OR, 4 XR)

Class 704 DATA PROCESSING: SPEECH SIGNAL PROCESSING, LINGUISTICS,
 LANGUAGE TRANSLATION, AND AUDIO COMPRESSION/DECOMPRESSION
 704/200 . SPEECH SIGNAL PROCESSING
 704/201 .. For storage or transmission
 704/221 ... Pattern matching vocoders
 704/222 Vector quantization

4 704/224 (0 OR, 4 XR)

Class 704 DATA PROCESSING: SPEECH SIGNAL PROCESSING, LINGUISTICS,
 LANGUAGE TRANSLATION, AND AUDIO COMPRESSION/DECOMPRESSION
 704/200 . SPEECH SIGNAL PROCESSING
 704/201 .. For storage or transmission
 704/224 ... Normalizing

4 704/217 (2 OR, 2 XR)

Class 704 DATA PROCESSING: SPEECH SIGNAL PROCESSING, LINGUISTICS,
 LANGUAGE TRANSLATION, AND AUDIO COMPRESSION/DECOMPRESSION
 704/200 . SPEECH SIGNAL PROCESSING
 704/201 .. For storage or transmission
 704/211 ... Time
 704/216 Correlation function
 704/217 Autocorrelation

4 704/220 (0 OR, 4 XR)

Class 704 DATA PROCESSING: SPEECH SIGNAL PROCESSING, LINGUISTICS,
 LANGUAGE TRANSLATION, AND AUDIO COMPRESSION/DECOMPRESSION
 704/200 . SPEECH SIGNAL PROCESSING
 704/201 .. For storage or transmission
 704/220 ... Analysis by synthesis

3 704/206 (1 OR, 2 XR)

Class 704 DATA PROCESSING: SPEECH SIGNAL PROCESSING, LINGUISTICS,
 LANGUAGE TRANSLATION, AND AUDIO COMPRESSION/DECOMPRESSION
 704/200 . SPEECH SIGNAL PROCESSING
 704/201 .. For storage or transmission
 704/205 ... Frequency
 704/206 Specialized information

3 704/E19.019 (0 OR, 3 XR)

Class 704 DATA PROCESSING: SPEECH SIGNAL PROCESSING, LINGUISTICS,
 LANGUAGE TRANSLATION, AND AUDIO COMPRESSION/DECOMPRESSION
 704/E19.001 . SPEECH OR AUDIO SIGNAL ANALYSIS- SYNTHESIS TECHNIQUES FOR
 REDUNDANCY REDUCTION, E.G., IN VOCODERS, ETC.; CODING OR DECODING OF SPEECH OR AUDIO
 SIGNALS; COMPRESSION OR EXPANSION OF SPEECH OR AUDIO SIGNALS, E.G., SOURCE-FILTER
 MODELS, PSYCHOACOUSTIC ANALYSIS, ETC. (EPO)
 704/E19.01 .. Using spectral analysis, e.g., transform vocoders, subband
 vocoders, perceptual audio coders, psychoacoustically based lossy encoding, etc.,
 e.g., MPEG audio, Dolby AC-3, etc. (EPO)
 704/E19.018 ... Using subband decomposition (EPO)
 704/E19.019 Subband vocoders (EPO)

3 704/258 (1 OR, 2 XR)

Class 704 DATA PROCESSING: SPEECH SIGNAL PROCESSING, LINGUISTICS,
 LANGUAGE TRANSLATION, AND AUDIO COMPRESSION/DECOMPRESSION
 704/200 . SPEECH SIGNAL PROCESSING
 704/258 .. Synthesis

- 3 704/ 227 (0 OR, 3 XR)
 Class 704 DATA PROCESSING: SPEECH SIGNAL PROCESSING, LINGUISTICS,
 LANGUAGE TRANSLATION, AND AUDIO COMPRESSION/DECOMPRESSION
 704/ 200 . SPEECH SIGNAL PROCESSING
 704/ 201 .. For storage or transmission
 704/ 226 ... Noise
 704/ 227 Pretransmission
- 3 704/ E19. 003 (0 OR, 3 XR)
 Class 704 DATA PROCESSING: SPEECH SIGNAL PROCESSING, LINGUISTICS,
 LANGUAGE TRANSLATION, AND AUDIO COMPRESSION/DECOMPRESSION
 704/ E19. 001 . SPEECH OR AUDIO SIGNAL ANALYSIS-SYNTHESIS TECHNIQUES FOR
 REDUNDANCY REDUCTION, E. G., IN VOCODERS, ETC.; CODING OR DECODING OF SPEECH OR AUDIO
 SIGNALS; COMPRESSION OR EXPANSION OF SPEECH OR AUDIO SIGNALS, E. G., SOURCE-FILTER
 MODELS, PSYCHOACOUSTIC ANALYSIS, ETC. (EPO)
 704/ E19. 003 .. Correction of errors induced by the transmission channel,
 if related to the coding (EPO)
- 3 704/ E19. 032 (0 OR, 3 XR)
 Class 704 DATA PROCESSING: SPEECH SIGNAL PROCESSING, LINGUISTICS,
 LANGUAGE TRANSLATION, AND AUDIO COMPRESSION/DECOMPRESSION
 704/ E19. 001 . SPEECH OR AUDIO SIGNAL ANALYSIS-SYNTHESIS TECHNIQUES FOR
 REDUNDANCY REDUCTION, E. G., IN VOCODERS, ETC.; CODING OR DECODING OF SPEECH OR AUDIO
 SIGNALS; COMPRESSION OR EXPANSION OF SPEECH OR AUDIO SIGNALS, E. G., SOURCE-FILTER
 MODELS, PSYCHOACOUSTIC ANALYSIS, ETC. (EPO)
 704/ E19. 023 .. Using predictive techniques; codecs based on source-filter
 modelization (EPO)
 704/ E19. 026 ... Determination or coding of the excitation function;
 determination or coding of the long-term prediction characteristics (EPO)
 704/ E19. 032 Determination or coding of a multipulse excitation (EPO)
- 3 704/ 201 (1 OR, 2 XR)
 Class 704 DATA PROCESSING: SPEECH SIGNAL PROCESSING, LINGUISTICS,
 LANGUAGE TRANSLATION, AND AUDIO COMPRESSION/DECOMPRESSION
 704/ 200 . SPEECH SIGNAL PROCESSING
 704/ 201 .. For storage or transmission
- 3 375/ 254 (0 OR, 3 XR)
 Class 375 PULSE OR DIGITAL COMMUNICATIONS
 375/ 242 . PULSE CODE MODULATION
 375/ 254 .. Noise or distortion reduction
- 3 704/ E19. 024 (0 OR, 3 XR)
 Class 704 DATA PROCESSING: SPEECH SIGNAL PROCESSING, LINGUISTICS,
 LANGUAGE TRANSLATION, AND AUDIO COMPRESSION/DECOMPRESSION
 704/ E19. 001 . SPEECH OR AUDIO SIGNAL ANALYSIS-SYNTHESIS TECHNIQUES FOR
 REDUNDANCY REDUCTION, E. G., IN VOCODERS, ETC.; CODING OR DECODING OF SPEECH OR AUDIO
 SIGNALS; COMPRESSION OR EXPANSION OF SPEECH OR AUDIO SIGNALS, E. G., SOURCE-FILTER
 MODELS, PSYCHOACOUSTIC ANALYSIS, ETC. (EPO)
 704/ E19. 023 .. Using predictive techniques; codecs based on source-filter
 modelization (EPO)
 704/ E19. 024 ... Determination or coding of the spectral characteristics,
 e. g., of the short-term prediction coefficients, etc. (EPO)
- 3 375/ 350 (1 OR, 2 XR)
 Class 375 PULSE OR DIGITAL COMMUNICATIONS
 375/ 316 . RECEIVERS
 375/ 346 .. Interference or noise reduction
 375/ 350 ... By filtering (e. g., digital)
- 3 704/ 221 (1 OR, 2 XR)
 Class 704 DATA PROCESSING: SPEECH SIGNAL PROCESSING, LINGUISTICS,

LANGUAGE TRANSLATION, AND AUDIO COMPRESSION/DECOMPRESSION
 704/200 . SPEECH SIGNAL PROCESSING
 704/201 .. For storage or transmission
 704/221 ... Pattern matching vocoders

3 704/262 (0 OR, 3 XR)
 Class 704 DATA PROCESSING: SPEECH SIGNAL PROCESSING, LINGUISTICS,
 LANGUAGE TRANSLATION, AND AUDIO COMPRESSION/DECOMPRESSION
 704/200 . SPEECH SIGNAL PROCESSING
 704/258 .. Synthesis
 704/262 ... Linear prediction

2 704/228 (0 OR, 2 XR)
 Class 704 DATA PROCESSING: SPEECH SIGNAL PROCESSING, LINGUISTICS,
 LANGUAGE TRANSLATION, AND AUDIO COMPRESSION/DECOMPRESSION
 704/200 . SPEECH SIGNAL PROCESSING
 704/201 .. For storage or transmission
 704/226 ... Noise
 704/228 Post-transmission

2 704/501 (0 OR, 2 XR)
 Class 704 DATA PROCESSING: SPEECH SIGNAL PROCESSING, LINGUISTICS,
 LANGUAGE TRANSLATION, AND AUDIO COMPRESSION/DECOMPRESSION
 704/500 . AUDIO SIGNAL BANDWIDTH COMPRESSION OR EXPANSION
 704/501 .. With content reduction encoding

2 341/51 (1 OR, 1 XR)
 Class 341 CODED DATA GENERATION OR CONVERSION
 341/50 . DIGITAL CODE TO DIGITAL CODE CONVERTERS
 341/51 .. Adaptive coding

2 704/264 (0 OR, 2 XR)
 Class 704 DATA PROCESSING: SPEECH SIGNAL PROCESSING, LINGUISTICS,
 LANGUAGE TRANSLATION, AND AUDIO COMPRESSION/DECOMPRESSION
 704/200 . SPEECH SIGNAL PROCESSING
 704/258 .. Synthesis
 704/264 ... Excitation

2 704/E19.006 (0 OR, 2 XR)
 Class 704 DATA PROCESSING: SPEECH SIGNAL PROCESSING, LINGUISTICS,
 LANGUAGE TRANSLATION, AND AUDIO COMPRESSION/DECOMPRESSION
 704/E19.001 . SPEECH OR AUDIO SIGNAL ANALYSIS-SYNTHESIS TECHNIQUES FOR
 REDUNDANCY REDUCTION, E.G., IN VOCODERS, ETC.; CODING OR DECODING OF SPEECH OR AUDIO
 SIGNALS; COMPRESSION OR EXPANSION OF SPEECH OR AUDIO SIGNALS, E.G., SOURCE-FILTER
 MODELS, PSYCHOACOUSTIC ANALYSIS, ETC. (EPO)
 704/E19.006 .. Comfort noise, silence coding (EPO)

2 381/94.1 (0 OR, 2 XR)
 Class 381 ELECTRICAL AUDIO SIGNAL PROCESSING SYSTEMS AND DEVICES
 381/94.1 . NOISE OR DISTORTION SUPPRESSION

2 704/E21.013 (0 OR, 2 XR)
 Class 704 DATA PROCESSING: SPEECH SIGNAL PROCESSING, LINGUISTICS,
 LANGUAGE TRANSLATION, AND AUDIO COMPRESSION/DECOMPRESSION
 704/E21.001 . MODIFICATION OF AT LEAST ONE CHARACTERISTIC OF SPEECH WAVES
 (EPO)
 704/E21.002 .. Speech enhancement, e.g., noise reduction, echo
 cancellation, etc. (EPO)
 704/E21.003 ... Applications (EPO)
 704/E21.012 Separate reconstruction of interference and of speech
 signal (EPO)
 704/E21.013 The interference being a separate speaker (EPO)

- 2 704/ 218 (0 OR, 2 XR)
 Class 704 DATA PROCESSING: SPEECH SIGNAL PROCESSING, LINGUISTICS,
 LANGUAGE TRANSLATION, AND AUDIO COMPRESSION/ DECOMPRESSION
 704/ 200 . SPEECH SIGNAL PROCESSING
 704/ 201 .. For storage or transmission
 704/ 211 ... Time
 704/ 216 Correlation function
 704/ 218 Cross-correlation
- 2 375/ 245 (1 OR, 1 XR)
 Class 375 PULSE OR DIGITAL COMMUNICATIONS
 375/ 242 . PULSE CODE MODULATION
 375/ 244 .. Differential
 375/ 245 ... Quantizer or inverse quantizer
- 2 341/ 143 (0 OR, 2 XR)
 Class 341 CODED DATA GENERATION OR CONVERSION
 341/ 126 . ANALOG TO OR FROM DIGITAL CONVERSION
 341/ 143 .. Differential encoder and/or decoder (e.g., delta
 modulation, differential pulse code modulation)
- 2 704/ 229 (1 OR, 1 XR)
 Class 704 DATA PROCESSING: SPEECH SIGNAL PROCESSING, LINGUISTICS,
 LANGUAGE TRANSLATION, AND AUDIO COMPRESSION/ DECOMPRESSION
 704/ 200 . SPEECH SIGNAL PROCESSING
 704/ 201 .. For storage or transmission
 704/ 229 ... Adaptive bit allocation
- 2 375/ 243 (2 OR, 0 XR)
 Class 375 PULSE OR DIGITAL COMMUNICATIONS
 375/ 242 . PULSE CODE MODULATION
 375/ 243 .. Correcting or reducing quantizing errors
- 2 704/ 203 (1 OR, 1 XR)
 Class 704 DATA PROCESSING: SPEECH SIGNAL PROCESSING, LINGUISTICS,
 LANGUAGE TRANSLATION, AND AUDIO COMPRESSION/ DECOMPRESSION
 704/ 200 . SPEECH SIGNAL PROCESSING
 704/ 201 .. For storage or transmission
 704/ 203 ... Transformation
- 2 704/ 233 (0 OR, 2 XR)
 Class 704 DATA PROCESSING: SPEECH SIGNAL PROCESSING, LINGUISTICS,
 LANGUAGE TRANSLATION, AND AUDIO COMPRESSION/ DECOMPRESSION
 704/ 200 . SPEECH SIGNAL PROCESSING
 704/ 231 .. Recognition
 704/ 233 ... Detect speech in noise
- 2 375/ 241 (0 OR, 2 XR)
 Class 375 PULSE OR DIGITAL COMMUNICATIONS
 375/ 240 . BANDWIDTH REDUCTION OR EXPANSION
 375/ 241 .. Pulse code modulation
- 2 704/ 270 (1 OR, 1 XR)
 Class 704 DATA PROCESSING: SPEECH SIGNAL PROCESSING, LINGUISTICS,
 LANGUAGE TRANSLATION, AND AUDIO COMPRESSION/ DECOMPRESSION
 704/ 200 . SPEECH SIGNAL PROCESSING
 704/ 270 .. Application